ExxonMobil Refining & Supply Company 5000 Bayway Drive P.O Box 4004 Baytown, Texas 77522-4004



September 8, 2017

Chief
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611,
Ben Franklin Station
Washington, DC 20044-7611
Reference Case No. 90-5-2-1-07030

Environmental Protection Agency Director,
Air Enforcement Division Office of Regulatory Enforcement
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1200 Pennsylvania Avenue,
N.W. Washington, DC 20460

Chief
Air, Toxics, and Inspections Coordination Branch
Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Re: Notification of Force Majeure Event and Request for Enforcement Discretion as a Result of Hurricane Harvey for ExxonMobil Baytown Refinery (BTRF), ExxonMobil Baytown Chemical Plant (BTCP), ExxonMobil Baytown Olefins Plant (BOP), ExxonMobil Baytown Technology and Engineering Complex (BTEC), ExxonMobil Mont Belvieu Plastics Plant (MBPP).

Dear Sirs and Madams:

Pursuant to Paragraph 218 of the Consent Decree (CD) between the United States and Exxon Mobil Corporation (ExxonMobil), and ExxonMobil Oil Corporation entered on December 13, 2005, this letter provides notice that a Force Majeure event has occurred as a result of Hurricane Harvey. This Force Majeure event has impacted the ability of BTRF to comply with various provisions of the CD. Additionally, Hurricane Harvey may have impacted the ability of the ExxonMobil Baytown and Mont Belvieu facilities (BTRF, BTCP, BOP, BTEC and MBPP) to comply with various provisions of state and federal air regulations.

The CD required ExxonMobil to include certain CD requirements in the Title V operating permit for BTRF. Thus, some of the potential compliance issues identified in this Force Majeure notice may also be potential noncompliance with the Title V operating permit. Some of the potential noncompliance issues identified in this notice may qualify for exemptions available for startups, shutdowns or malfunctions. In addition, this letter advises of potential federal air regulatory compliance issues under the CD, Title V



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permit and federal rules and regulations, in general. To the extent that exemptions do not apply to any such noncompliance issues or such issues are deemed to be outside the scope of this Force Majeure notice under the CD, ExxonMobil hereby requests that EPA exercise enforcement discretion to not seek penalties or other enforcement action for the activities undertaken to respond to and recover from the hurricane. At this time, CD impacts and potential impacts on other federal air rules and regulations, as laid out below, are estimates and based on information currently available. As better information becomes available, ExxonMobil will update EPA, as discussed below.

As Hurricane Harvey approached the Texas Gulf Coast, the ExxonMobil Baytown and Mont Belvieu facilities prepared for impacts and made operational adjustments starting on August 24, 2017 and continued on August 25, 2017. The initial forecast called for landfall well to the southwest of the Baytown and Mont Belvieu areas. The Baytown and Mont Belvieu areas were expected to experience approximately 15 inches of rain, but the areas were not expected to experience significantly hazardous winds. However, in the hours prior to landfall, Hurricane Harvey developed and strengthened significantly, eventually making landfall on August 25, 2017 near Corpus Christi, Texas, as a Category 4 hurricane. ExxonMobil monitored the storm path and weather forecast, which called for the storm to be slow moving with a prediction of even heavier rainfall for the Baytown and Mont Belvieu areas. Based on the rapidly deteriorating weather conditions in the Baytown and Mont Belvieu areas, ExxonMobil Baytown and Mont Belvieu area facilities began shutdown activities on August 27, 2017.

After landfall, Hurricane Harvey stalled over south Texas approximately 200 miles southwest of Houston. The slow movement and location of the storm resulted in sustained rain bands over the Baytown and Greater Houston area. Extreme storm conditions from Hurricane Harvey in the greater Baytown and Mont Belvieu areas resulted in over 40 inches of rain in four (4) days with up to 4.12 inches of rain over a one (1) hour period. Hurricane Harvey is considered to be the wettest tropical cyclone on record in the contiguous United States and caused torrential rain and life-threatening flooding conditions which resulted in billions of dollars of damage to homes, property, and infrastructure in southeast Texas. The Governor of Texas issued a Disaster Proclamation for many counties in the State of Texas, including Harris and Chambers Counties and a Presidential declaration of a major disaster was also issued.

The excessive rain from the hurricane resulted in significant flooding at the ExxonMobil Baytown and Mont Belvieu facilities and caused damage to the steam and electrical distribution systems. Recovery of operations at the ExxonMobil Baytown and Mont Belvieu facilities has been ongoing due to the damage from the storm. Recovery of operations has also been impacted by the limited availability of support personnel — both employee and contractor — due to impacts of the hurricane on area transportation infrastructure and the delay, in some instances, of these personnel being able to return to work.

ExxonMobil commenced efforts to assess and return the Baytown and Mont Belvieu facilities to normal operations within days of the impact of the hurricane. Start-up of certain units has resulted in unavoidable flaring and emissions exceedances from some plant equipment. ExxonMobil has implemented good air pollution control practices including operation of emissions control devices during the entire period to minimize excess emissions. In addition, ExxonMobil has been communicating directly with the Texas Commission on Environmental Quality (TCEQ) regarding the ExxonMobil facilities' recovery from the storm.

The shutdown and subsequent efforts to restart equipment within the BTRF has resulted in a number of

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issues related to compliance with the CD. These efforts at the BTRF and the other ExxonMobil facilities may have also resulted in a number of issues related to the provisions of state and/or federal air regulations. These efforts are critical for startup preparations and/or necessary interim post-hurricane operations due to the adverse conditions and damage created by the hurricane and its aftermath.

ExxonMobil believes that the impact of Hurricane Harvey on BTRF qualifies as Force Majeure event as described in Paragraph 218 of the NSR CD. In addition, to the extent that Hurricane Harvey impacts the ability of any or all of the ExxonMobil Baytown and Mont Belvieu facilities to comply with federal air regulations, ExxonMobil requests that EPA exercise enforcement discretion during this event for units / areas enumerated below for the period from August 25, 2017 through October 31, 2017. This time period represents the time from which we began adjusting operations in preparation for Hurricane Harvey to our current best estimate of when all necessary repairs will be completed and operations returned to normal.

1. Fluid Catalytic Cracking Unit (FCCU) NOx Limits (NSR CD Paragraphs 16, 20, 43a and NSPS Ja) BTRF is currently required by the CD and Title V permit conditions to comply with short-term (7-day average) and long-term (365-day average) NOx limits. BTRF is concerned that the hurricane shutdown activities and the ongoing start-up activities after the hurricane may result in exceedances of the short-term limit. Paragraph 20 of the CD provides exemptions from compliance for startup, shutdown and malfunctions related to an FCCU and malfunctions related to its associated NOx control system, and we believe that these exemptions should be considered applicable for any FCCU NOx exceedance which occurred or will occur during the shutdown period and the extended start-up activities. This condition is expected to remain for the next several weeks until operations have fully stabilized and conditions are back to normal. ExxonMobil requests that the daily average concentrations from August 25, 2017 through October 31, 2017 be excluded from the long-term averaging period calculation.

2. FCCU SO2 Limits (NSR CD Paragraphs 23, 24, 31, 43.a. and NSPS J/Ja)

BTRF is currently required by the CD and Title V permit conditions to comply with short-term (7-day average) and long-term (365-day average) SO2 limits. BTRF is concerned that Hurricane shutdown activities and ongoing start-up activities after the Hurricane may result in exceedances of the short-term limit. Paragraph 31 provides exemptions from compliance for malfunctions related to an FCCU and its associated Wet Gas Scrubber, and we believe that these exemptions should be considered applicable for any FCCU SO2 exceedance which occurred or will occur during the shutdown period and the extended start-up activities. This condition is expected to remain for the next several weeks, until operations have fully stabilized and conditions are back to normal. ExxonMobil requests that the daily average concentrations from August 25, 2017 through October 31, 2017 be excluded from the long-term averaging period calculation.

3. FCCU CO Limits (NSR CD Paragraphs 39, 41, 43c NSPS J/Ja and 40 CFR 63 Subpart UUU regulations)

The shutdown and subsequent start-up of the FCCUs has resulted in exceedances of the 500 ppmv CO limit at the FCCUs. CD Paragraph 41 provides exemptions from compliance for startup, shutdown and malfunctions related to an FCCU and malfunctions related to its associated CO control system. We believe that these exemptions should be considered

applicable for any FCCU CO exceedance which occurred or will occur during the shutdown period and the extended start-up activities described above.

4. FCCU PM/Opacity Limits (NSR CD Paragraphs 34a, 36, 43b, 43d, NSPS J/Ja and 40 CFR 63 Subpart UUU regulations)

The shutdown and subsequent start-up/troubleshooting of the FCCUs has resulted in excursions of monitoring parameter limits at the Wet Gas Scrubber. Paragraph 36 provides exemptions from PM limit compliance for malfunctions related to an FCCU and its associated Wet Gas Scrubber. We believe that these exemptions should be considered applicable for any FCCU PM exceedance which occurred or will occur during the shutdown period and the extended startup activities described above. BTRF is normally required to maintain minimum liquid/gas ratios across the Wet Gas Scrubbers and maximum overhead stack temperature to demonstrate compliance with PM and opacity limits, as specified in the approved Alternative Monitoring Plan (AMP). BTRF expects these past and potential future operating conditions, which may prevent our ability to meet the AMP requirements, to exist for the next several weeks, until operations have fully stabilized and operations are back to normal as described.

5. Flares - Acid Gas and Hydrocarbon Flaring (NSR CD Paragraphs 73, 79, 86.i. and 92 and NSPS Ja) ExxonMobil has made and will continue to make all reasonable efforts to minimize refinery gas flaring, but some hydrocarbon flaring and some acid gas flaring appears to have occurred or may occur during the unit shutdowns and the extended startup activities. In order to restart the Refinery, some amount of acid gas must be managed. All ExxonMobil Baytown and Mont Belvieu facilities are being and will continue to be restarted in such a manner so as to maximize our ability to manage the gases with minimal flaring. Manual NSPS Ja samples are being collected to determine the total sulfur content used to evaluate and establish baseline parameters associated with the threshold to trigger the root cause analysis. However; the manual sample results used may not be representative of normal operating conditions. Samples might need to be collected until results are representative of normal operating conditions. While we will continue to take steps to minimize flaring, additional flaring could occur while returning units to normal operation.

6. <u>Heaters, Boilers and Other Fuel Gas Combustion Devices (Other than Flaring Devices). (NSR CD Paragraph 59.a. and NSPS J/Ja)</u>

BTRF is currently required by the CD and Title V permit conditions to comply the H2S limits for fuel gas combusted at heaters, boilers and other fuel gas combustion devices (other than flare devices). Hurricane shutdown activities and ongoing start-up activities may result in exceedances of H2S limit. This condition is expected to remain for the next several weeks starting on August 25, 2017. BTRF operations are expected to have stabilized and return to normal no later than October 31, 2017.

7. <u>Sulfur Recovery Unit Limits - Preventative Maintenance and Operations (PMO) Plans, Sulfur Pits.</u> <u>Tail Gas Incineration (NSR CD Paragraphs 64, 65, 86.i. and 91)</u>

As part of equipment shutdowns within BTRF, Sulfur Conversion Unit (SCU) 2 was shut completely down. This is an abnormal situation in that SCU 2 is normally not taken completely out of service. Rather, a single CLAUS train will be taken out of service for maintenance while the remaining CLAUS trains continue in operation. However, during this total shutdown and

subsequent "cold" restart of SCU 2, the potential exists that we will not be able to meet the normal NSPS J performance standards for sulfur recovery units. In addition, it may be necessary to bypass the tail gas clean-up unit (TGCU) and vent directly to the incinerators while the tail gas units are restarted and brought to normal operations. Every reasonable effort has been and continues to be made to minimize and/or eliminate these periods during which the standard is exceeded. These incidents could extend from August 25, 2017 through October 31, 2017, as operations are stabilized. Finally, it may not have been possible to follow some of the tasks in the PMO Plans during shutdown and/or restart periods.

8. <u>Leak Detection and Repair (Paragraphs 123 - 130 and other federal regulations requiring the use of Method 21 to monitor fugitive emissions)</u>

The ExxonMobil Baytown and Mont Belvieu facilities may be unable to complete fugitive emissions monitoring and repair on some components for which monitoring and repair were required from August 25, 2017 through October 31, 2017. The inability to complete this monitoring is primarily related to the lack of contractor manpower due to the hurricane. It may be difficult to locate and bring in the necessary number of contract fugitive emissions monitoring personnel. This lack of manpower may compromise our ability to conduct the monitoring and needed mechanical repairs. Our intent is to complete the scheduled monitoring as rapidly as possible, and we are in the process of developing a schedule to do so. Additionally, components on Delay of Repair may not be repaired prior to the restart of the facilities. These Delay of Repair components will be repaired or replaced during the next shutdown of the respective units. This is consistent with prior catastrophe recovery and LDAR guidance provided to industry by EPA.

9. <u>Benzene Waste NESHAP (NSR CD Paragraphs 98, 102, 105, 108 and 112 and Benzene Waste NESHAP regulations Part 61, Subpart FF)</u>

We are continuing to perform our benzene sampling as specified in our CD BWON sampling plan. However, until data is received by ExxonMobil from outside laboratories, we will not know if there will be any issues in meeting quarterly or annual benzene limits. Since the outside laboratories which we use in the Houston / Galveston area are also experiencing problems due to the hurricane, we expect there will be potential delays in receiving the results of these tests. In addition, we continue our efforts to comply with the appropriate requirements of the Benzene Waste NESHAP regulation in 40 CFR Part 61, Subpart FF. At this time we do not know if there will be compliance issues with these regulations.

10. <u>Continuous Emissions Monitoring Systems (CEMS) or Continued Parameter Monitoring System (CPMS) (NSR CD Paragraphs 21, 32, 42, 54. 64.b. 73 and 40 CFR Appendices and other federal regulations requiring continuous monitoring)</u>

The shutdown of some units may have caused several CEMS / CPMS onsite to malfunction, resulting in monitoring system downtimes. We are in the process of confirming the validity of all CEMS / CPMS to ensure compliance with NSPS Subpart J/Ja and other appropriate federal regulations related to CEMS / CPMS operations. CEMS / CPMS have extensive electronic components, and problems related to the unprecedented flooding can manifest themselves at any time for several months after the event. For that reason, additional downtime is possible and could extend August 25, 2017 through October 31, 2017.

11. Storage Tanks (NSPS K, Ka, Kb and NESHAP Subparts 61 and 63)

We are still in the process of reviewing the status of our tanks in the ExxonMobil Baytown and Mont Belvieu facilities. It is possible that issues occurred as a result of the Hurricane, such as roof damage, landing the tank roof on its legs, loss of vapor recovery systems, etc.

12. NOx Limits for Turbine Generators (NSPS Subpart GG)

We are still in the process of reviewing the CEMS data for the various turbine generators subject to NSPS Subpart GG. While we have not yet identified any specific concerns at this time, it is possible that issues occurred as a result of the hurricane, such as exceedance of the NSPS GG NOx standard.

13. Compliance with Title V Emissions Limits and Other Specific Requirements

Shutdown activities during the hurricane and subsequent start-up/troubleshooting of ExxonMobil Baytown and Mont Belvieu facilities appears to have resulted in some exceedances of federally enforceable air emissions limits and non-compliance with other specific requirements in the Title V Permits. We anticipate that these exceedances and other non-compliance issues will be resolved by October 31, 2017 as described above.

14. <u>Hazardous Organic NESHAP (HON), and Miscellaneous Organic NESHAP (MON) (NESHAP Part 63 Subpart F, G, H and FFFF) and other federal regulations</u>

We are still in the process of reviewing operating data associated with compliance with these regulations, but limitations associated with electrical power outages and computer capabilities have impeded our ability to determine our exact status at the present time. However, there is a possibility that noncompliance with emissions limits, reporting requirements, record keeping requirements, etc. may have occurred.

15. Other Federal Air Regulations

We are still in the process of assessing the impacts of the hurricane under various other federal air regulations. At this time we have not identified any such issues. However, there is a possibility that non-compliance with emissions limits, reporting requirements, record keeping requirements, etc. may have occurred.

All reporting on the above items will be performed as specified in the CD or in applicable regulations and/or Title V reports. In addition, we will report BTRF excess emissions resulting from this situation in the next CD Semi-Annual Report and in other reports as required by federal air regulations.

Within 30 days of the mailing of this letter, a follow-up letter will be sent to EPA which will provide an update on the recovery of the Baytown and Mont Belvieu facilities from Hurricane Harvey. If you have any questions or concerns about this notice, please contact Isabel M. Rivero at 281-834-1992.

Jeff Kovacs

Baytown Complex SSHE Manager

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